

IEEE COMMITTEE ON SOCIAL IMPLICATIONS OF TECHNOLOGY
New York - April 28, 1973

MINUTES

1. The Vice-Chairman, Mr. Robbi, called the meeting to order at 9:30 a.m.

Those present: Anthony Robbi, Vice-Chairman
Peter D. Edmonds, Staff Secretary

Richard M. Emberson, TAB Secretary
*William Higinbotham, Chairman, Subject Areas
Sub-committee
*Victor Klig, Chairman, Procedures Sub-committee
Michael Pessah, Editor, C-SIT Newsletter
Stephen Unger, Chairman, Publications Sub-committee

(*part-time)

[N.B. In accordance with the C-SIT Procedures statement, the above organizational entities are now described as sub-committees, while the term working group will be used for each subset of members concerned with a subject area or topic.]

The Chairman, Dr. Barrow, being unable to attend any meeting for several weeks, recommended that the meeting be held nevertheless. The meeting date was changed from May 2 to April 28 in response to a previously expressed preference for all-day Saturday meetings.

Since a quorum was not present, all actions are subject to ratification by the full committee. Notice is given that lack of objection within 30 days constitutes ratification under IEEE procedures.

The current roster is shown as Attachment A.

2. Minutes

ACTION
(Agenda)

Minutes of the March 30, 1973 meeting were made available at the meeting. They were accepted for use and will be submitted for approval at the next meeting. All action items were reviewed and found to have been completed or to be ready for reports.

3. Agenda

No additional item was suggested.

4. Questionnaire Responses

4.1 IEEE Activists

ACTION
(Stoller)
(Agenda)

About 40 responses have been received to date at the TAB Office. Copies have been sent to Mr. Stoller for analysis and report at the next meeting.

4.2 Curricula

ACTION
(Lewis/
Stillingner/
Wernitz/
Higinbotham)

In the absence of further report, it was assumed that Dr. Lewis and Mr. Stillingner are using the results of their survey (see minutes 3/30/73, Attachment C) to prepare an article for publication. It was pointed out that the Bibliography sub-committee should have information on sources suitable for filling gaps that have been identified in curricula. Interaction between Messrs. Wernitz, Stillingner and Lewis was recommended. Drs. Unger and Higinbotham will also offer inputs.

ACTION
(Robbi)

It was further suggested that an opportunity would arise in 1974 for a symposium on courses and curricula on Social Implications of Technology. The subject symposium could be held in the U.S. in conjunction with G-Ed, possibly co-sponsored by ASEE. (In 1974 the IEEE Education Group's annual conference will be held in England). Mr. Robbi will follow up with Dr. Lewis and the G-Ed President, Dr. Biedenbach, 717/734-811

5. Future Major Conferences5.1 NEREM'73

ACTION
(Barrow)

Dr. Barrow had advised Mr. Robbi that he was proceeding with discussion of plans for a session sponsored by C-SIT at NEREM'73. The session will treat the relevance of engineering education to the future requirements of society and the stability of engineering as a career, under the tentative title: Would you want your daughter to marry an engineer?

5.1.1 Potential Project

THOUGHT
(Unger)

Dr. Emberson remarked that much concern was being expressed in letters from IEEE members on 'the identity crisis of engineers.' Mr. Klig suggested to Dr. Unger that some of his students might undertake a project (for course credit) to collect these and similar letters, prepare factual summaries, reviews and comments, publish the material and report at INTERCON'74. Dr. Unger received the suggestion with cautious interest.

5.2 INTERCON'74

Mr. Robbi submitted the proposal(s) shown as Attachment B. All C-SIT members are requested to review, to comment directly to Mr. Robbi, and to propose means of implementing those or their own proposals.

Dr. Unger added to the proposal: Reports of Subject Area Working Groups that were sufficiently advanced to do so (see minute 6).

6. Subject Area Working Groups

Dr. Higinbotham submitted the report shown as Attachment C. About 70 responses have been received at the TAB Office to date. After detailed discussion, the following ACTIONS were agreed:

4/28/73

ACTIONS (As indicated)	<u>SUBJECT AREA/TOPIC</u>	<u>ACTION</u>	<u>CONSEQUENT ACTIONS</u>
	1. Ethics	Higinbotham (WAH) to send Unger copies of responses	Coordination with USAC/ Employment Guidelines Com.
		Unger to organize Working Groups (WG), assuming Chairmanship himself or nominating chairman.	If Unger takes Chairmanship he will nominate a successor as Chairman of Publications Sub-Com.
	2. Environment	WAH to organize WG to prepare papers complementing any that may be generated by IEEE Power Engineering Society or Nuclear & Plasma Sciences Society.	Possible inputs to IEEE positions papers. Coordination with EQC, S-PE and S-NPS
	3. Urban Technology - Transportation	WAH to identify and nominate Chairman of WG	Possible coordination with S-IA and TAB Transportation Com.
	4. Communications	WAH and Balabanian to review responses and nominate Chairman of WG.	Unger will participate in WG. Coordination with S-COM, CATV Com.
	5. National Security	WAH to send each respondent a list of others and suggest they self-construct a WG.	C-SIT to reconsider this topic if initiative develops.
	6. Data Banks	Same as topic 5.	Same as topic 5.
	7. Socio-Economic Issues	Edmonds to advise USAC sub-com. Chairman of the list of interested members.	Possible inputs to USAC Committee reports.
	(coalescence with Topic 10 was also proposed).		
	8. Education	WAH to ask Wm. Welch, Arizona State University, to organize WG and serve as Chairman (check with Lewis first!)	Coordination with G-Ed. 1974 Symposium?
	9. Bioelectronic	WAH to send Pessah copies of responses. Pessah to organize WG and nominate Chairman.	Coordination with G-EMB.

Minutes incomplete. Page 4 is missing.

ratification by full C-SIT as are all actions reported in these minutes. In the meantime, Mr. Klig will function as acting editor.)

ACTION
(Klig)

The acting editor will report at the next meeting the names of assistants and regional correspondents who are willing to assist him.

NEWSLETTER SCHEDULING

Mr. Pessah reported that the May '73 issue is ready for review and processing; it will contain reports from INTERCON '73 events and will run to 16 page

Deadlines for the next two issues of the Newsletter will be:

Material to editor	July 15	September 15
Mailing	Mid August	Mid October
Receipt	Mid September	Mid November

7.1.2 Transference of Interest to Subject Areas

THOUGHT
(Higinbotham)
ACTION
(Klig)
ACTION
(Barrow)

Dr. Fey and Mr. Sarasohn had advised the Secretary that their interest lay in subject area working groups rather than organizational aspects of C-SIT. Their names were brought to the attention of Dr. Higinbotham. Mr. Klig agreed to contact Dr. Fey for an article on the current activities of the Computer Society. The Committee recommended that Mr. Beam be asked by the Chairman to take over Mr. Sarasohn's task of surveying relevant IEEE activities and making contacts.

7.1.3 Withdrawal symptoms

THOUGHT
(Barrow)

On the basis of information received, it was concluded that Mr. Gaffney was unlikely to participate further in C-SIT affairs. Further action, if any, rests with the Chairman, Dr. Barrow.

7.1.4 Candidates for Committee Assignments

ACTION
(Unger)

The Secretary reviewed the names of interested persons listed as an attachment to the August '72 minutes.

Dr. Unger will contact Rubin, Wyner, Barus, Citron and Paul. Mr. Robbi will contact Russo and Freeman.

(All others)

Other C-SIT members are encouraged to contact other interested persons to involve them in the organizational sub-committees or the subject area working groups of C-SIT. Names of willing candidates should be communicated to the appropriate sub-committee chairman or to Dr. Higinbotham (for working groups.)

7.2 Liaison With Other IEEE Entities

The Secretary pointed out that a number of IEEE entities (EAB, Regions 5 and 6, Division II, etc.), had appointed liaison representatives

to serve as members of C-SIT. Despite the reference to such representatives in the adopted C-SIT Procedures statement, their functions were either not fully defined or not fully perceived. At the next meeting, reports will be requested on the pertinent activities of the entities represented. In addition, inputs to the other IEEE entities should be provided by the designated representatives or others (liaison is a two-way street) in cases where the social implications of a proposed or ongoing activity were being inadequately considered. By reference to the IEEE Organization chart (Attachment D), the Committee determined the following liaison needs:

ACTION
(Agenda)

ACTIONS
(as indicated)

IEEE Entity	Current Representative	Person to Contact	Responsible to make Contact	Requested to make Proposal
Conference Board and INTERCON Program Com.	-	?	Barrow	Robbi (see Attach. B)
	-	?	Barrow	Robbi
(for policy and operating decisions and access, re INTERCON'74)				
2. Awards Board	-	Awards Board Chairman	(to be designated by C-SIT Chairman)	Wernitz
(for proposing criteria, selection procedure, nature and funding sources for an IEEE award recognizing particular socially responsible acts re: technology).				
3. EAB - Com. on Professional Opportunities for Women (U.S.)	Beam	Apter	Beam	
- Com. on Minorities		Saline	Beam	
(for appointment of woman and minority members of C-SIT)				
USAC - Committees		Committee Chairman	to be designated by C-SIT Chairman	Huginbotham
(for liaison between C-SIT (working groups and sub-committees) and USAC Committees as indicated in C-SIT minute 3.1, 3/30/73).				
4. TAB/USAC - CATV Guidelines Project	-	Barrow, TAB-Vice-Chairman	Barrow, C-SIT Chairman	Barrow, C-SIT Activist

- 5. TAB
 - Standards Committee - Briskman Sherr Barrow Edmonds
- Notes
PDE to get current list of Standards projects from Sherr for review.

(for inputs to standards in preparation)

- G-PC - Lufkin Klig
- G-Ed - Biedenbach (Lewis? See also Minutes 6.6! - Welch? Sarasohn?
- G-EM - (Higinbotham To be designated. Edmonds
- G-SMC - Chen

(for coordination of internal educational functions)

- Technology Forecasting & Assessment Committee - Rowe Edmonds Fey, Rabow Bronwell?

(for inputs to assessment)

- 6. PUB Board
 - Spectrum Editorial Board - Balabanian
 - Other boards - Cotellessa Unger

(for inputs to publication policy)

8. Presentations of Socio-Economic Information to C-SIT

Mr. Beam had proposed that experts in subjects such as sociology and economics be invited to talk at C-SIT meetings before the business sessions. The Committee agreed in principle and asked Mr. Beam to make a specific suggestion to the Chairman for implementation at the next meeting.

ACTION (Beam)

9. Next Meeting

The next meeting will be scheduled during the last week of June. Members of C-SIT are asked to advise the Secretary of their preference for meeting time: Weekday, weekday evenings, Saturday. Those present on 4/28/73 expressed preference for weekday evening meetings during the summer.

ACTION (All)

7

10. Adjournment

The Chairman adjourned the meeting at 1 p.m.

P. D. Edmonds
Staff Secretary

Issued: 5/15/73

ATTACHMENTS: A Roster
 B INTERCON'74 proposal, Robbi
 C. Subject Areas Report, Higinbotham
 D. IEEE Organization Chart

Enclosure: Summary of Action Items

Distribution: C-SIT members and staff
 H. Chestnut
 R. H. Tanner
 J. M. Kinn
 E. K. Gannett
 D. Christiansen

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Intercon 74 A Proposal

Intercon, unlike the specialized conferences, brings together a cross-section of IEEE membership and IEEE officers and activists. Assuming that there is an Intercon 74 I propose CSIT play a more active and useful role than it did in 1973. In order to do so our public activities must be acknowledged in the Official Program.

Recommendations:

(A) Name of program - The program should not be called "Technical Program". IEEE is no longer a purely technical society. The Intercon 74 program name and content should reflect this fact. Possibilities - Professional Program, Official Program, Intercon Program, etc.

(B) Workshops - I felt our Open Forum sessions were at their best when they "degenerated" into give and take sessions. What was lacking was attendance, a theme attendees could anticipate, sufficient time, and output beyond newsletter copy. A persistent malaise of all large organized bodies, such as IEEE, is that the leadership is out of touch with the membership. Surveys may point to areas of trouble but the human interaction at a workshop level provides an opportunity to explore alternative courses of action, or inaction. I suggest all-day workshops with a short lunch break, one hour. Attendance by invitation and public notice. Sponsorship should be joint in many instances. Possible themes:

- (1) Engineering education - What are its responsibilities? Is it meeting them?
- (2) Professional employment guidelines - Do they go far enough? Are they being met? Do engineers need a union or guild?
- (3) Indochina - What technology is being used there? What was used there? Was it effective? What are the moral implications?
- (4) Public view of engineering - What is the image? Is it false or true? Political status of engineering - NSF, DOD, etc. News coverage of technology.
- (5) State and local government - What can engineers do locally to improve the public welfare in their communities, their regions, their states?
- (6) And others.....? Subject Areas active

(C) Special Session (evening) - take a social look at some aspect of technology. That is apply the Limits to Growth Session strategy to a smaller, more tractable dilemma than world catastrophe. Examples: Cities and transit - does improvement help? The automobile society - a boon or a curse? Communications - is man better off?.....
 What I suggest here is to magnify Walter Bearn's suggestion of a sociologist talking to CSIT. Three or four such, with differing viewpoints, talking to IEEE on a technology/society question of sufficiently small dimensions so that a few engineers might be persuaded to take some action on it.

BROOKHAVEN NATIONAL LABORATORY
MEMORANDUM

DATE: April 26, 1973

TO: IEEE C-SIT
FROM: W. A. Higinbotham *W.A.H.*
SUBJECT: Topics of Interest to Members

At the March meeting I reported on the response to the topical interest questionnaire. Since then more replies have been received. I have now received 58 signed replies and 10 unsigned.

It is difficult to interpret the results for a number of reasons. The questions were not too clearly stated. Some respondents indicated interest, others their competence. Some checked only major categories, some subtopics and some both, etc.

There is some interest in every major and minor topic. I do not feel that we have received guidance on priorities. On the other hand, if we should agree on the desirability of setting up some topical committees, the responses do provide a useful list of volunteers for each.

I offer the following suggestions for your consideration, following the outline of the questionnaire:

1) Ethics: This did not draw as large a response as did many of the other topics but there are plenty to form a committee. Would Steve Unger volunteer to head this up? The replies showed interest in a, b and c, but not d. Perhaps Ted Werntz would like to take on the follow-up on d (EE's and Viet Nam).

2) Environment: There was little interest in monitoring instruments (a), considerable interest in energy policy and related topics. In my opinion, the interest in these topics should be conveyed to the IEEE power and nuclear societies. C-SIT might initiate one or more study groups but should not have to maintain full responsibility for them.

3) Urban Technology: The interest is primarily transportation, a big response. My guess is that the interest is more in the Technology than in the planning or politics. We should try to get something started.

4) Communications: The interest is primarily in a greater involvement of the public. Would N. Balabanian be interested in trying to lead such a group?

5) National Security: There is some interest in the DOD budget and in conversion from military to civilian engineering. I suggest we postpone action on this one.

6) Data Banks: Similar to #5. I suggest we postpone this topic also.

7) Socio-economic Issues: It seems to me that items a - d are or should be taken care of by other Institute organs. If so, we might advise them of the individuals who have indicated interest in these areas.

A substantial number rated e, opportunity for social problem solving, high. We should discuss what this means to us and what should be done.

8) Education: This rated high. The questionnaire sent to colleges and universities indicates a lot is going on. We should form a group at least to continue exchange of information. There is less interest in items c and d.

9) Bioelectronics: Substantial interest. I feel that any action should be coordinated with the Medical Electronics Group, or whatever it is. Emphasis should be on social and ethical implications.

10) Application of Systems Engineering, etc.: This had a good response. It seems to me that it is closely related to predicting the impact of new technology, which is another big IERE activity. Should this be referred to that committee or coordinated with it or what? Gerald Rabow sent me a letter which should be considered in connection with this item, item 7c and item 1c.

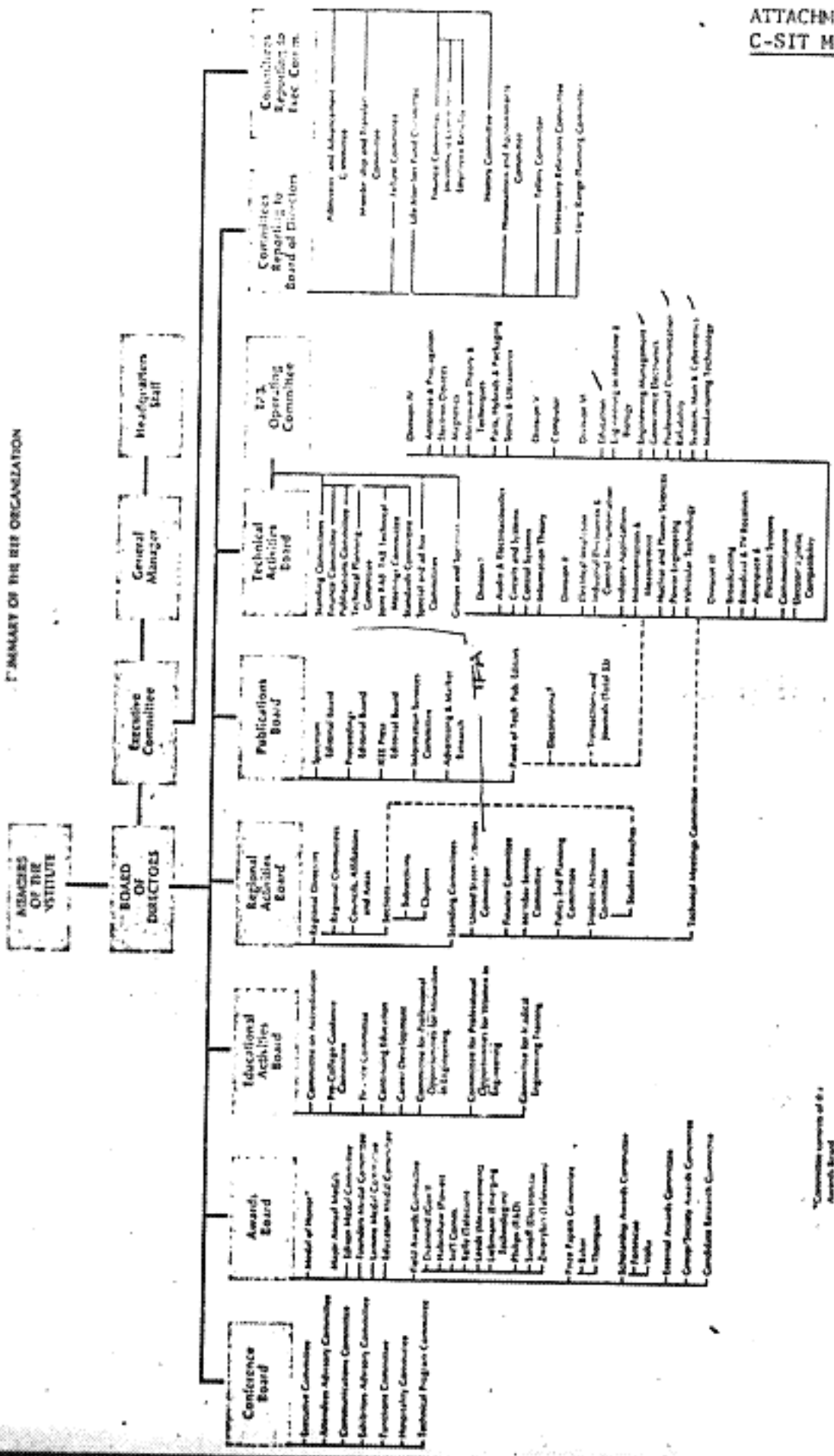
11) Humanization of Automation: The response was modest. I propose action be postponed.

12) Other: We received a number of interesting comments but none that suggest we forgot something important.

WAH:ndj

3

SUMMARY OF THE BEE ORGANIZATION



*Committee members of the Awards Board
Reports to the Executive Committee



THE INSTITUTE OF
ELECTRICAL AND
ELECTRONICS
ENGINEERS, INC.

345 EAST 47TH STREET, NEW YORK, N.Y. 10017 AREA CODE 212 152 5800

IEEE Committee on Social Implications of Technology

Meeting Notice

The next meeting of C-SIT will be held:

PLEASE NOTE Saturday, April 28, 1973 - 9:30 a.m., all day
DATE CHANGE IEEE Headquarters - Conference Room, 10th floor
United Engineering Building
345 E 47 Street, New York

Anthony Robbi will chair this working meeting. - 609/452-2700 x-3218

A G E N D A

1. Introductions, if necessary
2. Minutes of 3/30/73 meeting
 - 2.1. Review of action items
3. Items for the agenda
4. Questionnaire responses
 - 4.1 IEEE Activists - Stoller
 - 4.2 Curricula - Stillinger - plans for use of data
5. Future major conferences
 - 5.1 NEREM'73 - Barrow reporting progress
 - 5.2 INTERCON'74 - Robbi
6. Subject Areas Working Groups - Higinbotham
7. C-SIT organization - Robbi
 - 7.1 Assignments of active members
 - 7.1.1 Newsletter Editor (Pessah resigning due to relocation)
 - 7.1.2 Others and potential new members
 - 7.2 Functions of members representing other IEEE units
 - 7.2.1 Liaison to other IEEE units
8. Presentations to C-SIT - Beam - plans
9. Interfaces with USAC
10. Possibility of C-SIT dues
11. Next meeting
12. Adjournment

IEEE COMMITTEE ON SOCIAL IMPLICATIONS OF TECHNOLOGY
New York - April 28, 1973

ACTION ITEMS

Summary of Action Items (and some for Thought)

Please refer to numbered minute for action requested.

<u>Barrow</u>	<u>Beam</u>	<u>Edmonds</u>	<u>All</u>
ACTION			
5.1	7.2.3	2.	6-A
7.1.2	8.	6.7	7.1.4
7.2.1		6.10	9.
7.2.4		6-A	
7.2.5		7.2	
THOUGHT		7.2.5	Liaison reps.
7.1.3			7.2
<u>Higinbotham</u>	<u>Klig</u>	<u>Lewis</u>	<u>Werntz</u>
ACTION			
4.2 6-A	7.1.1	4.2	4.2
6.1 7.2.3	7.1.2	7.2.5	7.2.2
6.2 7.2.5			
6.3			
6.4 THOUGHT			
6.5 7.1.2			
6.6			
6.8			
6.9			
6.10			
6.12			
<u>Unger</u>	<u>Pessah</u>	<u>Robbi</u>	<u>Stoller</u>
ACTION			
4.2	6.9	4.2	4.1
6.1		7.1.4	
7.1.4			
7.2.6			
THOUGHT			
5.1.1			